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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,911	09/04/2003	Jeffery A. Whiteford	40-003300US	8639

22798 7590 09/11/2006

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EXAMINER

DIXON, MERRICK L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,911

Applicant(s)

WHITEFORD ET AL.

Examiner

Merrick Dixon

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,12,13 and 16-42 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10,12,13 and 16-42 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119


- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.


MERRICK DIXON
PRIMARY EXAMINER

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 37-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Majumdar et al(US 6882051).

The cited reference teaches the claimed composition comprising an aligned, plurality of elongated structurally ordered nanowires in a matrix- col 5, lines 28-32; fig.30.

3. Claims 1-10,12,13,15,16,17,18 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Matyjaszewski et al(US 7056455 B2).

The cited reference teaches the claimed invention comprising a composition comprising a plurality of structurally ordered nanostructures in a matrix comprising chemically crosslinkable nanostructures – col 8, lines 30-35; col 43, lines 23-29; col 20, lines 46-51; col 21, lines 4-28; col 18, line 64- col 19, line 4; col 18, lines 26-39; col 17, lines 32-52; col 21, lines 34-64; col 7, lines 57- col 8, line 9. The reference teaches aligned nanostructures, as required by claims 2-7, 16-17 - col 21, lines 34-64. The reference teaches self assembling material in col 16, lines 20-23 and required by claim 12. The reference teaches similar nanostructures in col 8, lines 9-23, as required by claims 8, 9 and 18,10, also see entire reference. The reference teaches material cross-linked, as required by claim 13, in col 43, lines 23-29; col 8, lines 30-35. The reference teaches several binding components in col 21, lines 4-28 and required by claim 15.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-30,32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyjaszewski et al(US .455) in view of Ying et al(US 5958367).

The primary reference teaches the claimed invention including the aspect of including various shaped nanostructures (col 16, lines 9-23) and ligands(col 37, lines 53-55).

The secondary reference, however, teaches that it is known in the art to include ligands in similar compositions as taught by the primary reference- col 7, lines 24-40; col 2, lines 61-67; col 7, lines 24-33. It would have been obvious to one of ordinary skill in the art at the time the invention is made to combine the teachings of the secondary reference to Ying et al and include such material in the primary reference motivated by the desire to more stabilize the product- col 2, lines 56-60; col 7, lines 33-39. Concerning claims 20-21, 32, the primary reference teaches oriented nanostructures in col 21, lines 34-64; col 7, lines 57- col 8, line 8; col 18, line 64- col 19, line 4. Concerning claims 22-30, 33-36, it is submitted the secondary reference teaches the claimed limitations- see entire reference.

6. Applicant's arguments with respect to claims 1-10,12,13,16-42 have been considered but are moot in view of the new ground(s) of rejection.

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Scher et al(US 7087833 B2) is cited of interest to show the claimed invention. It is noted the reference has different inventive entities and could possible constitute another 102 rejection .

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Applicants who wish to send a facsimile (draft copies) for the examiner's immediate review can do so by using the Examiner's personal fax number at 571-273-1520. The faxing of all papers must conform with the notice published in the Official Gazette, 1096 O.G. 30 (November 15, 1989). **NOTE: All facsimiles sent to the examiner's**

personal fax number should be in draft-forms and will be treated as informal.

Same facsimiles will not be entered in the related applications unless otherwise agreed and noted by the examiner.

The fax number for all other fascimile is 571-273-8300.

Information about **the status of an application** may be obtained from the Patent Information Retrieval system (**Private PAIR**).

Status inquires for **published applications** may be retrieved from either **Private PAIR** or **Public PAIR**. Questions about the PAIR system should be directed to the Electronic Business Center at **866-217-9197**.

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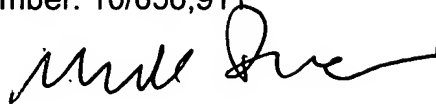
Any questions concerning the instant communication should be directed to Examiner Dixon, at 571-272-1520, Mondays, Wednesdays and Thursdays, between 12 noon and 8 PM, eastern time .

Merrick Dixon

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A handwritten signature in black ink, appearing to read "Mike Dine", is written over the printed name "Mike Dine".

Primary Examiner

Group 1700